

Article Overview

A distribution box safely distributes electrical power to multiple circuits, with lighting distribution boxes handling smaller loads like lights and sockets, and power distribution boxes managing higher loads for motors and heavy equipment.

Overview of Distribution Boxes

A distribution box, also called a power distribution box or electrical distribution box, is a device used to receive electrical power from a main supply and distribute it to multiple branch circuits safely and efficiently. It organizes electrical connections, protects circuits with breakers or fuses, and improves maintenance efficiency in residential, commercial, and industrial systems . Distribution boxes can be wall-mounted or floor-standing, and made from metal or plastic depending on the environment and load requirements .

Lighting Distribution Box

A lighting distribution box is designed for smaller electrical loads, typically below 63A. It primarily powers lighting fixtures, ordinary sockets, small motors, and sometimes air conditioners in civil buildings. These boxes usually operate on single-phase 220V or three-phase 380V systems, with circuit breakers rated for medium or small short-time overloads . They are often wall-mounted and suitable for residential, office, or light commercial applications. Non-professionals can generally operate these boxes safely due to their lower load and simpler configuration .

Power Distribution Box

A power distribution box handles higher electrical loads, often exceeding 63A, and is used for motors, heavy machinery, and integrated lighting systems. These boxes are typically three-phase 380V and include circuit breakers designed for medium or large short-time overloads . They are essential in industrial settings, factories, workshops, and large commercial buildings where high-capacity power distribution is required. Power distribution boxes are more robust, often floor-standing, and may include additional protective and measuring devices to monitor and control electrical parameters .

Key Differences

Feature	Lighting Distribution Box	Power Distribution Box
Load Capacity	Below 63A	Above 63A
Main Use	Lights, sockets, small motors	Motors, heavy equipment, integrated systems
Voltage	220V single-phase or 380V three-phase	380V three-phase
Circuit Breakers	Medium/small short-time overload	Medium/large short-time overload
Installation	Wall-mounted, residential/commercial	Floor-standing or wall-mounted, industrial/commercial
User Access	Can be operated by non-professionals	Requires professional handling

Safety and Maintenance

Both types of distribution boxes require proper maintenance to ensure safety. Key considerations include moisture-proofing, corrosion protection, and ensuring power is disconnected before cleaning or servicing. Circuit breakers and protective devices prevent overloads, short circuits, and electrical hazards, making these boxes critical for safe and reliable power distribution. In summary, lighting distribution boxes are suited for smaller, low-load applications, while power distribution boxes are designed for high-load, industrial, or large commercial applications, both ensuring organized, safe, and efficient electrical distribution.

Lighting Distribution Systems Looking to power up your Lighting, Lamps & Tubes projects? Our comprehensive range of Lighting

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What to Look for When Choosing a Distribution Box If you're going to buy a distribution box, there are several things

Lucy Electric's range of low voltage outdoor cut outs and distribution boxes is engineered for durability, safety, and ease of

2. Power distribution box Floor installation, the main load is power or lighting and power are used together, and a large-capacity

Flex7 Lighting Distribution Boxes are both designed and fully manufactured in the UK. This means that

Lex Products offers a full range of portable power distribution boxes and units, specifically

Power Distribution Box On the other hand, a power distribution box is designed to handle significant power loads and

Power distribution box: Usually equipped with larger capacity circuit breakers and protection devices to deal with high current and

Learn what a power distribution box is, how it works, key components, types, and why it's

Discover reliable power lighting distribution boxes with IP65 waterproof protection and CE certification. Ideal for electrical enclosures



Power Box Lighting Distribution Box

Discover the essentials of a Power Distribution Box--how it works, key types, benefits, and

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Many people don't know the difference between them. To understand the difference between the two, we

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Web: <https://www.millstraining.co.za>

